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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,652	03/22/2000	Wen-Chen Su	AVERYRC.5CPCP1	9479

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EXAMINER	
EGAN, BRIAN P	

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 09/11/2002 10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/918,652	Applicant(s) SU ET AL.	
	Examiner Brian P. Egan	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Claims 15-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method of making a multilayered release liner, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 4, and 10 are rejected under 35 U.S.C. 112, first paragraph, for failing to contain a written description of the invention in such a full, clear, concise, and exact terminology as to enable any person skilled in the art to which it pertains to make and use the same. Claim 10, dependent on both claims 1 and 4, recites the limitation, "wherein the release layer is devoid of silicone." Claim 1 specifically recites that the layer is silicone-containing. Therefore, it is contradictory to claim both a silicone-containing layer and then later claim that it is devoid of silicone. Proper correction is required.

4. Claims 1 and 9-10 are rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention. There is a lack of antecedent basis in the aforementioned claims for the term, "release

layer." Claim 1, line 5 recites the limitation of a "release surface." It is unclear whether the "release layer" terminology was intended to refer back to the release surface or whether there is actually a distinct release layer which is distinct from the release surface. Proper correction is required.

5. Claims 6-8 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention. The aforementioned claims all recite process limitations that are not given patentable weight in article claims. Specifically, claim 6 recites the limitation, "wherein the support layer and release layer are deposited substantially simultaneously," claim 7 recites the limitation, "wherein the support layer and release layer are deposited by a die," claim 8 recites the limitation, "wherein the support layer and the release layer are deposited by curtain coating," and claims 13-14 recite the limitation, "wherein the 90 degree peel release force measured on a TLMI lab master instrument at a rate of 7.62 m/min is less than about 40cN/25mm." These limitations recite no limitations specific to a structure and have been given no weight for examination purposes. Proper clarification and/or correction are required.

6. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention. The claim as presently worded is improper. Given that claim numbers frequently change throughout prosecution it is improper to have a claim refer to another claim by number unless it is dependant upon that claim. Here, claim 12 is considered an independent claim and should therefore incorporate the specific language of claim 6 rather than referring to it by number. Proper correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson et al. (#4,859,511) in view of Allen et al. (#5,510,190), Ishiwata et al. (#3,573,965), and Sasaki et al. (#5,558,913).

Patterson et al. teach a multilayered release liner comprising a backing, a support layer covering the backing, and a silicone-containing layer covering the support layer wherein the silicone layer has a release surface (see Abstract). The release liner is incorporated into a pressure-sensitive adhesive label substrate structure (Col. 1, lines 8-11). Although the release layer is preferably silicone-containing, it is not limited to any particular type, therefore allowing for other release materials that are equivalent to silicon yet devoid of silicone to be used (Col. 2, lines 45-47). Patterson et al. teach examples wherein the solids compositions are altered between 25 and 75% wherein the solids are primarily silicone (Col. 3, lines 48-52). Although Patterson does not explicitly state that the silicone distribution at successive 1 micrometer depths from the release layer surface is overall substantially nonlinear to a total silicone content of at least 90% or that more than 70% of the silicone is within 2 micrometers from the release surface, Patterson et al. teach that both the deposition of the release coating and the support may be effected by conventional methods (Col. 2, lines 53-61 and Col. 3, lines 24-26). The applicant contends that

the non-linearity of the silicone is a function of the coating technique as described in the applicants disclosure, p.27, line 10 to p.33, line 9. Therefore, although the applicant distinguishes the present application from Patterson et al. by claiming that Patterson et al. pre-coats the paper substrate then subsequently coats the pre-coat with the silicone-containing layer, Patterson et al. is not limited to this method of deposition since any conventional method of applying the layers is acceptable (Col. 2, lines 53-61 and Col. 3, lines 24-26). It is notoriously well known in the art that various conventional methods of deposition are used in radiation-curable release compositions, including roller coating, *curtain coating*, brushing, spraying, reverse roll coating, doctor knife, dipping and *die coating* as evidenced by Allen et al. (Col. 5, lines 34-39). Therefore, it would have been obvious through routine experimentation to one of ordinary skill in the art to use any of the aforementioned coating techniques since they are each considered conventional means of coating. Furthermore, it is notoriously well known in the art that dual die coating is a cost-effective method of coating since only a one-step coating process is needed and the thicknesses of the individual layers are controlled by metering the amount of material discharged from each orifice of the die as evidenced by both Ishiwata et al. (see Abstract and Col. 1, lines 55-60) and Sasaki et al. (Col. 3, lines 8-14). Therefore, it also would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to select a dual die coating method from the list of conventional coating techniques since dual die coating not only decreases production costs but also allows the thicknesses of the multiple layers to be controlled by metering the amount of discharged material from each orifice of the die.

Thus, despite Patterson et al. failure to explicitly state the physical conditions of the silicone distribution, the silicone distribution limitations are inherently met since the degree of intermixing between the support layer and the silicone-containing layer is dependant on the coat weight ratio as well as the coating technique (see applicants disclosure). It is notoriously well known in the art to select any known coating technique in forming release liners and the dual die technique is both cost effective and allows for thickness control of the layers – therefore rendering an inherent non-linearity distribution property of the silicone.

9. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson et al. (#4,859,511) in view of Allen et al. (#5,510,190), Ishiwata et al. (#3,573,965), and Sasaki et al. (#5,558,913), and further in view of Newing et al. (#5,165,976).

Patterson et al. teach a release liner as detailed above. Patterson et al. is motivated by the desire to make a release liner at the lowest possible silicone coating weight while providing the desired release level (Col. 1, lines 60-63). Patterson et al. fail, however, to explicitly state that the release sheet exhibits a peel release force below 20 cN/25 mm (equivalent to 8 N/m).

Newing et al., however, teach a release liner with a silicone release layer wherein the solids in the layer are substantially silicone solids and the release sheet exhibits a peel release force below 8 N/m (Col. 13, Table 4). Newing et al. teach the silicone release liner for the purpose of providing a release liner which can be manufactured in a more economical fashion under a condition which eliminates the risk of environmental pollution, and in which the release level can be controlled at a variety of peel rates so as to enable high speed convertibility (Col. 2, lines 4-9). Therefore, it would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have provided a release liner

structure with a vinyl-addition silicone release layer for the purpose of providing a release liner which can be manufactured in a more economical fashion under a condition which eliminates the risk of environmental pollution, and in which the release level can be controlled at a variety of peel rates so as to enable high speed convertibility as taught by Newing et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified Patterson et al., motivated by the desire to make a release liner at the lowest possible silicone coating weight while providing the desired release level, by providing the release liner with a vinyl-addition silicone layer as taught by Newing et al. in order to provide a release liner which can be manufactured in a more economical fashion under a condition which eliminates the risk of environmental pollution, and in which the release level can be controlled at a variety of peel rates so as to enable high speed convertibility.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

9/6/02

BPE
September 6, 2002